IEPA Log No.: **C-0107-15**
CoE appl. #: **2014-00193**

Public Notice Beginning Date: **September 28, 2016**
Public Notice Ending Date: **October 19, 2016**

Section 401 of the Federal Water Pollution Control Act
Amendments of 1972

Section 401 Water Quality Certification to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois Environmental Protection Agency
Bureau of Water
Division of Water Pollution Control
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-3362

Name and Address of Discharger: Metropolitan Water Reclamation District of Greater Chicago, 100 E. Erie Street, Chicago, IL 60611

Discharge Location: Section 31, T43N, R11E of the 3rd P.M. and Section 36, T43N, R10E of the 3rd P.M. in Lake County near Buffalo Grove and Long Grove.

Name of Receiving Water: Buffalo Creek Reservoir and Unnamed Wetlands.

Project Description: Buffalo Creek Reservoir Expansion.

The Illinois Environmental Protection Agency (IEPA) has received an application for a Section 401 water quality certification to discharge into the waters of the state associated with a Section 404 permit application received by the U.S. Army Corps of Engineers. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice. The last day comments will be received will be on the Public Notice period ending date unless a commenter demonstrating the need for additional time requests an extension to this comment period and the request is granted by the IEPA. Interested persons are invited to submit written comments on the project to the IEPA at the above address. Commenters shall provide their names and addresses along with comments on the certification application. Commenters may include a request for public hearing. The certification and notice number(s) must appear on each comment page.

The attached Fact Sheet provides a description of the project and the antidegradation assessment.

The application, Public Notice/Fact Sheet, comments received, and other documents are available for inspection and may be copied at the IEPA at the address shown above between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the certification application, the IEPA may, at its discretion, hold a public hearing. Public notice will be given 30 days before any public hearing. If a Section 401 water quality certification is issued, response to relevant comments will be provided at the time of the certification. For further information, please call Thaddeus Faught at 217/782-3362.

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Fact Sheet for Antidegradation Assessment
Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) – Buffalo Creek Reservoir and Unnamed Wetlands – Lake County
IEPA Log # C-0107-15
COE # LRC-2014-00193
Contact: Bob Mosher, 217/558/2012
September 28, 2016

The Metropolitan Water Reclamation District of Greater Chicago (MWRDGC; "Applicant") has applied for a 401Water Quality Certification for impacts associated with the proposed improvements to Buffalo Creek Reservoir (BCR) and the Buffalo Creek Forest Preserve. The project area is located within the Buffalo Creek Forest Preserve and is bordered by the communities of Long Grove and Buffalo Grove in Section 31, Township 43 North, Range 11 East and Section 36, Township 43 North, Range 10 East, Lake County. The proposed project includes expansion of the reservoir capacity by 180 acre-feet of storage, incorporation of public access and trail improvements desired by Lake County Forest Preserve District (LCFPD), creation of upland habitat on LCFPD property with excess material generated by expanding the reservoir, regrading of side slopes to create a more stable shoreline, and establishment and re-establishment of wetlands. Approximately 82,603 square feet (~1.9 acres) of fill will be placed below the Ordinary High Water Mark (OHWM) along Buffalo Creek to stabilize stream banks, fill existing wetlands, and provide fill for the relocation/elevation of Forest Preserve trails. The purpose of the project is provide additional stormwater storage to reduce flood damages downstream on Buffalo Creek and on the mainstem Des Plaines River in a cost-beneficial manner and to improve public trail access and recreational use in the Buffalo Creek Forest Preserve.

A total of 4.21 acres of wetland impacts will occur due to regrading and altered hydrology; 1.51 acres of wetlands will be created from the existing open water resulting in approximately 2.70 acres of wetland impacts requiring mitigation. The proposed project would create an open water net gain of 2.90 acres. Stream channel impacts from grade control and conversion to open water would total 339 linear feet (LF). Additionally, 1.76 acres of wetlands would be re-established in-situ and 0.34 acres of abandoned stream channel would be converted to wetland. Mitigation will include the restoration (reestablishment of former wetland) and enhancement (existing degraded wetlands improved) of an 89 acre off-site at the Captain Daniel Wright Woods Forest Preserve in Lake County. Stream impacts will be mitigated on-site and will include establishment of floodplain terraces, in-stream habitat including stone riffles and stabilization of eroding stream banks.

Identification and Characterization of the Affected Water Body.

According to the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List, Buffalo Creek Reservoir (IL_SGC) has been assessed by Illinois EPA and is listed as not supporting Aquatic Life and Aesthetic Quality uses. The impairment causes for Aquatic Life and Aesthetic Quality uses are Phosphorus (Total) and Total Suspended Solids (TSS). Dissolved Oxygen is also listed as impairment for Aquatic Life Use. Fish Consumption, Primary Contact Recreation, and Secondary Contact uses have not been assessed. BCR is not listed as biologically significant in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*; nor is it given an integrity rating in that document. Buffalo Creek Reservoir is not designated as an enhanced water pursuant to the dissolved oxygen water quality standard.

Hey and Associates, Inc. conducted wetland delineations of the approximately 320-acre property on May 8, 21, 23, 28, and June 13, 2014. Previous wetland delineation reports by Hey and Associates, Inc. dated December 2012 and by Lake County Stormwater Management Commission (SMC) dated November 27, 2012 were also used. The wetland delineations of the Forest Preserve property parcels both east and west of Schaeffer Road that are part of the reservoir expansion project revealed 23 wetlands (5-23) totaling 19.33 acres and 38.17 acres of open water in the reservoir basins. Wetlands 5-12 were considered isolated waters of Lake County by Lake County SMC and Wetlands 13-19 did not have a hydrologic connection to Buffalo Creek and were considered non jurisdictional. Wetlands 20, 20A, 21, 22, and 23 were considered jurisdictional. Wetland 23 represented the wetland fringe around the reservoir, was by far the largest wetland at 17.08 acres, and included the only moderate to high floristic quality native sedge meadow vegetation located along the northeast side of the main reservoir basin. Buffalo Creek Reservoir, the open water portion of the delineation, was created in the 1980's for flood control.

Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses.

The pollutant load increases that would occur from this project include some possible increases in total suspended solids. These increases, a normal and unavoidable result of the shoreline stabilization and fill, may occur in the reservoir at the point of construction activity. Best management practices (BMPs) including the use of a turbidity curtain, silt fences, and hay bales will be utilized during all proposed fill activities. Wetlands filled will be mitigated by at least a 1.5:1 ratio. This results in 4.05 acres of mitigation. The restoration/enhancement of wetlands in the Captain Daniel Wright Forest Preserve will total 22.25 acres of credit.

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in suspended solids will be local and temporary. Erosion control measures will be utilized to minimize any increase in these disturbances and prevent further impacts to the reservoir.

Purpose and Social & Economic Benefits of the Proposed Activity.

The BCR site will have increase storm water storage capacity and will thereby serve to protect the Des Plaines River from flooding. The local community will benefit from the protection of property from flooding. Additionally, wetland, reservoir, stream and upland habitats will be enhanced in the area of BCR. Wetlands destroyed in the enlargement of BCR will be mitigated in a near-by forest preserve where 89 acres of degraded and/or former wetlands will be improved through control of invasive species of trees and shrubs.

Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation.

A no-build alternative would result in continued higher levels of flooding downstream. Five scenarios for the increase in storm water holding capacity for BCR were considered. The chosen design maximizes the protection of wetlands while improving trail access in the forest preserve. Selection of the proposed alternative was determined through hydrologic, hydraulic and economic analysis summarized by the USACE.

Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities

An Eco-CAT endangered species consultation submitted on November 24, 2015 to the Illinois Department of Natural Resources resulted in no record of State-listed threatened or endangered species or protected natural areas in the vicinity of the project and consultation for IDNR Project #1605216 was immediately terminated.

Agency Conclusion.

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on the information available to the Agency at the time this assessment was written. We tentatively find that the proposed activity will result in the attainment of water quality standards; that all technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; and that this activity will benefit the community at large by providing storm water storage, wetland enhancement and trail improvements in a forest preserve. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.